SYSTEMS AND METHODS FOR SYNCHRONIZING MULTI-MODAL INTERACTIONS

ABSTRACT OF THE DISCLOSURE

System and methods for synchronizing interactions between mono-mode applications, different modes of a multi-modal application, and devices having different UI modalities. In one aspect, a multi-modal shell coordinates multiple mode processes (i.e. modalities) of the same application or multiple applications through API calls, whereby each mode process registers its active commands and the corresponding actions in each of the registered modalities. The multi-modal shell comprises a registry that is implemented with a command-to-action table. With the execution of a registered command, each of the corresponding actions are triggered to update each mode process accordingly, and possible update the registry to support new commands based on the change in state of the dialog or application. In another aspect, separate applications (with UI of different modalities) are coordinated via threads (e.g., applets) connected by socket connections (or virtual socket connections implemented differently). Any command in one mode triggers the corresponding thread to communicate the action to the thread of the other application. This

second thread modifies accordingly the state of the second

process mode. The threads are updated or replaced by new

threads

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